CLAIMS

We claim:

1. A method of evaluating the compositional characteristics of an entire corn plant, the method comprising:

(a) selecting a population of mature corn plants to be evaluated;

(b) selecting a limited number of representative plants from the population;

(c) harvesting the representative plants;

(d) grinding the representative plants into a homogeneous mixture;

(e) analyzing a sample of the homogeneous mixture in a near infrared spectrometer; and

(f) comparing the analysis with an existing correlation between near infrared analyses and wet-chemistry tested nutritional compositional characteristics to predict the compositional characteristics of the corn plant population.

2. The method of claim 1 wherein at least three representative plants from the population are selected based on visually surveyed characteristics.

3. The method of claim 1 wherein the representative plants are harvested at physical maturity.

4. The method of claim 1 wherein the representative plants are ground in a bowl grinder.

5. The method of claim 1 wherein the sample is analyzed by scanning at a plurality of locations.